

In the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

- 1 1. A computer implemented method of clipping a subject
- 2 polygon by a clip polygon and forming trapezoids filling the
- 3 clipped area comprising the steps of:
 - 4 (1) representing the subject polygon and the clip polygon each
 - 5 as a set of edges, each edge represented by minimum Y coordinate, a
 - 6 minimum X coordinate, a maximum Y coordinate and a slope;
 - 7 (2) sorting said subject polygon set of edges and said clip
 - 8 polygon set of edges in increasing values of minimum Y coordinate
 - 9 and storing said sorted set of edges as an array of edges;
 - 10 (3) determining the greatest minimum Y coordinate of a first
 - 11 edge entry in said subject polygon set of edges and a first edge
 - 12 entry in said clip polygon set of edges, thereby determining a
 - 13 bottom Y coordinate of a next trapezoid to be formed;
 - 14 (4) detecting all intersections between edges;
 - 15 (5) forming trapezoids for all areas within both said subject
 - 16 polygon and said clip polygon between successive pairs in the
 - 17 direction perpendicular to the scan line dimension of all edge ends
 - 18 and edge intersections between said greatest minimum Y coordinate
 - 19 of said subject polygon edges and said clip polygon edges and a
 - 20 smallest maximum Y coordinate of said subject polygon and said clip
 - 21 polygon edges.

Claims 2 to 10 (Canceled)